

## State of Idaho DEPARTMENT OF WATER RESOURCES

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## ADMINISTRATOR'S MEMORANDUM

TO: Regional Offices and Water Allocation Section

FROM: Dave Shaw DBS

DATE: August 7, 1979

RE: Fish Propagation Applications for Water Rights

Due to the unique nature of applications for water to be used for fish propagation, the following additional information will be required on all applications for 1.0 CFS or greater:

- a. Construction plan to include sizes and number of ponds, and total proposed facility volume.
- b. Proof of "possessory interest"\* of land at place of use.
- In addition are the following requirements for all fish propogation applications of 25.0 CFS or greater, as authorized in Section 42-202, Idaho Code:
  - a. A statement of financial resources of the corporation, association, firm or person making the application and the means by which the funds necessary to construct the proposed works are to be provided.
  - b. A detailed estimate of construction costs, to include estimated costs of each major component of the construction plan.

<sup>\*</sup> As defined in Administrator's Memorandum dated 4-7-1975

The rate of flow requested in the application must be evaluated by two criteria: (1) Attachment A, and (2) The rate of flow available considering the nature of the source. If the rate of flow requested appears to be excessive, justification for the high rate must be obtained from the applicant.

Measuring devices should be required at both the point of diversion from the source and the point of effluent discharge back to the source when the source is highly appropriated or is regulated by a watermaster. For otherwise unused, unregulated sources, no measuring device is normally necessary.

Water Requirements

For Trout Rear

**Facilities** 

Based On Total Volume Of Pol

Trout Hatchery Water Requirements

Idaho Fish and Game Department

## Trout Rearing Raceways.

Maximum annual production of trout in raceways in southern Idaho is 1 1/2 to 2 pounds of trout per cubic foot of water.

A water change of 2 1/2 times per hour is required to maintain adequate oxygen for trout. A raceway 6 feet wide, 2 1/2 feet deep, and 100 feet in length requires 1 1/4 c.f.s. flow. Water can be reused up to a maximum of 500 feet if it is aerated by dropping it 6 to 12 inches each 100 feet.

A rule of thumb for a profitable trout hatchery is not less than 5 c.f.s of 50 to 60 degree Fahrenheit water. A good trout hatchery will produce about 8,000 pounds of trout annually for each c.f.s. of water flow if water is reused. This should be considered as maximum production.

## Earthen Rearing Ponds or Small Lakes

Commercial producers often use earthen ponds or small lakes to rear trout. In this case trout density should not exceed 1/2 pound per cubic foot of water. Greater densities will lead to diseases that are difficult to handle in earthen ponds.

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